Listing of Claims:

The listing of claims below replaces all prior versions, and listings, of claims in the application:

1. (Original) A combined radiation and drug delivery catheter for inhibiting hyperplasia, comprising:

a catheter body having a proximal end and a distal end;

an ionizing radiation source coupleable to the catheter body for applying a radiation dose to a body lumen; and

means coupleable to the catheter body or the radiation source for releasing a radiosensitizer to the body lumen, wherein the combined radiation and radiosensitizer delivery catheter inhibit hyperplasia.

2. (Original) A delivery catheter as in claim 1, wherein the ionizing radiation source is an x-ray tube.

3. (Withdrawn) A delivery catheter as in claim 1, wherein the ionizing radiation source is a radioisotope.

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4. (Withdrawn) A delivery catheter as in claim 1, wherein the ionizing radiation source is a receptacle in the catheter body for receiving radioisotopic materials.

5. (Original) A delivery catheter as in claim 1, wherein the means comprises a source of at least one radiosensitizer selected from the group consisting of taxol, misonidazole, metronidazole, etanidazole, 5-fluorouracil, texaphyrin, C225, and cyclooxygenase-2 inhibitor.

6. (Original) A delivery catheter as in claim 1, wherein the means comprises a source of taxol incorporated in a solution with polyoxyethylated castor oil and dehydrated alcohol.

7. (Original) A delivery catheter as in claim 1, wherein the radiosensitizer is attached or encapsulated in a lipid or surfactant carrier.

8. (Original) A delivery catheter as in claim 1, wherein the means for releasing the radiosensitizer comprises a microporous balloon on the catheter body.

9. (Original) A delivery catheter as in claim 8, wherein the microporous balloon contains the radiosensitizer and the radiosensitizer is released from the microporous balloon by elution from pores.

10. (Original) A delivery catheter as in claim 9, wherein the microporous balloon is inflatable with the radiosensitizer .

B1 11. (Original) A delivery catheter as in claim 1, wherein the means for releasing the radiosensitizer comprises a matrix formed over at least a portion of a balloon on the catheter body, wherein the radiosensitizer is in or beneath the matrix.

Cont 12. (Original) A delivery catheter as in claim 11, wherein the matrix comprises a rate controlling material, wherein the rate controlling material controls the rate at which the radiosensitizer is released from or through the matrix.

13. (Original) A delivery catheter as in claim 12, wherein the radiosensitizer is released from the matrix by diffusion through the matrix.

14. (Original) A delivery catheter as in claim 12, wherein the radiosensitizer is released from the matrix by degradation of the matrix.

15. (Original) A delivery catheter as in claim 12, wherein the rate controlling material is porous and the radiosensitizer is released from the material by elution from pores.

16. (Original) A delivery catheter as in claim 11, wherein the radiosensitizer is disposed on the balloon.

17. (Original) A delivery catheter as in claim 8 or 11, wherein the ionizing radiation source is positionable within the balloon.

18. (Withdrawn) A delivery catheter as in claim 1, wherein the ionizing radiation source is a radioisotopic balloon and the means for releasing the radiosensitizer comprises a matrix formed over at least a portion of the radioisotopic balloon, wherein the radiosensitizer is in or beneath the matrix.

19. (Original) A delivery catheter as in claim 8 or 11, further comprising perfusion threading on an outer surface of the balloon.

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20. (Original) A delivery catheter as in claim 19, wherein the threading has a spiral, helical, or angled pattern.

21. (Original) A delivery catheter as in claim 8 or 11, wherein the catheter body has a perfusion lumen.